USCMS Engineer Status Report for May 2003

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1 Work Performed This Month

In order to further address problems found in DC04, I implemented the following two features in COBRA:

1) Allowing analysis to be done on events even if the runs in question have not been attached to the metadata with "AttachRun". If the user apecifies "BypassMetaData=true", the events in the input collections will be found even if the run(s) in question have not been attached. The only additional run-time cost is a single POOL file catalog query. So, the AttachRun tool is no longer absolutely necessary. This feature would have solved most of Fermilab's problems with metadata during DC04.

2) The ability to run AttachRun, knowing only the owner, dataset name, and run number, using the new AttachRun=¡runNumber¿ .orcarc parameter. This is very useful if the *.runid files containing the "ResumeRun" information are not available, as was the case at Fermilab diuring DC04.

I also did the following:

By modifying COBRA, successfully wrote user collections as POOL collections. This is a milestone in my ongoing work to incorporate the POOL collections facility in COBRA. This code has not yet been checked into CVS, because the work is still incomplete. The metadata is not fully incorporated, and the ability to read back the collection has not yet been implemented.

Corrected the many spelling errors I was able to detect in COBRA messages that are output to users. As these messages are user visible, the misspellings were causing problems for users trying to interpret output from their runs.

Serve on the working group for the Event Data Model (EDM) for the LHC Physics center (LPC).

2 Plans For Next Month

Finish as much as possible of the incorporation of POOL collections into COBRA.

Work on the ROOT plug in for POOL collections.

3 Longer Term Plans

Document COBRA for maintainability (by persons other than Vincenzo and myself). Allow COBRA to store data in ROOT trees. Facilitate ROOT browsability of POOL/ROOT files.